Evidencing of the efficacy of the Egalis[™] Ferment formulation on high dry matter grass.

Wambacq, L.; Latre, H. HoGent University, April 2022.





Objective: To assess the impact of Egalis Ferment on the fermentation and losses of ensiled, high dry matter (DM) grass.

Experimental design:

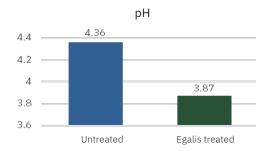
ntal Third-cut meadow grass (consisting mainly of *Lolium perenne*) was mown with a mower conditioner at a stubble height of 6–10 cm, pre-wilted to 41.8% DM and chopped. Five micro-silos were filled per treatment at an average silo density of 265 kg DM m³. The meadow grass starting material contained 3.45% water-soluble carbohydrate and is, therefore, classed as easy to ensile, according to the European Food Safety Authority (EFSA).

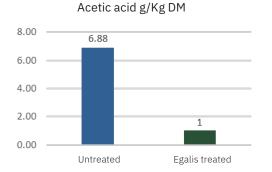
Treatments:



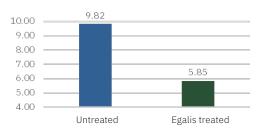


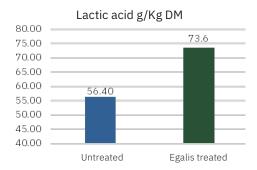
Post 100-day analysis of grass silage by wet chemistry:



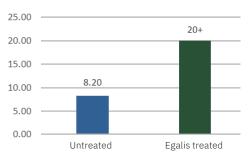


Ammonia as a % of total nitrogen

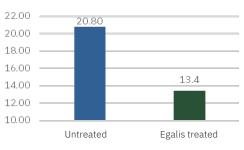




Lactic acid/acetic acid ratio



Ethanol g/Kg DM





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Key observations:

- Both the treated and the untreated forages produced a good lactic fermentation, with all silage being aerobically stable for more than five days.
- Egalis Ferment controlled the fermentation, even under optimal conditions, shifting the fermentation to the more efficiently produced lactic. This resulted in a significantly lower pH and elevated lactic acid while producing lower levels of the unpalatable acetic acid.
- Egalis Ferment increased the speed of fermentation, even under optimal ensiling conditions. This lead to a more rapid inhibition of undesirable proteolysis, which is driven by plant enzymes and naturally occurring organisms. This was indicated by reductions of more than 40% in ammonia (protein breakdown) and 35% in yeast activity at ensiling, shown by lower alcohol content. This means more of the originally ensiled protein is protected when presented to the animal.

Conclusion:

This study demonstrates that even under excellent ensiling conditions, Egalis Ferment enhances the speed of fermentation, protecting more true protein in the final silage and better maintaining the palatability of the silage.

